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I&T 100 YEARS OF LEADERSHIP 1886-1986

Implement & Tractor

The business magazine of the farm and industrial equipment industry NOVEMBER 1986

Stripper-Type Grain Header page 32

49th Market Statistics Issue

Latest Import-Export Data

Equipment on Farms

Retail Sales Perspective

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Representing Case-IH ...and John Deere page 8

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I&T 100 YEARS OF LEADERSHIP 1886-1986

Implement & Tractor

The business magazine of the farm and industrial equipment industry.

November 1986 • Vol. 101 • No. 13

49th Annual Statistics Issue

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On the cover...photo courtesy of Deutz-Allis Corp.

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Update

September Sales: Normal Softness

The flash report on September U.S. retail sales, from the Farm & Industrial Equipment Institute, indicates that the recent surge in combine sales has eased off. The market profile is back to its normal softness, but with nice improvements in sales of balers, mower-conditioners and smaller-horsepower tractors.

Unit Retail Sales

	September			January-September		
	1986	1985	Pct. Change	1986	1985	Pct. Change
Farm Wheel Tractors:						
2-wheel drive						
Under 40 hp	4,558	4,367	+ 4.4	49,350	46,151	+ 6.9
40-99 hp	2,580	2,513	+ 2.7	23,317	29,438	- 20.8
100-139 hp	255	375	- 32.0	3,863	5,958	- 35.2
Over 140 hp	486	877	- 44.6	7,049	7,989	- 11.8
Total 2-wheel drive	**7,879**	**8,132**	**- 3.1**	**83,579**	**89,536**	**- 6.7**
4-wheel drive						
Under 200 hp	25	66	- 62.1	387	636	- 39.2
Over 200 hp	99	115	- 13.9	942	1,270	- 25.8
Total 4-wheel drive	**124**	**181**	**- 31.5**	**1,329**	**1,906**	**- 30.3**
Total All Tractors	**8,003**	**8,313**	**- 3.7**	**84,908**	**91,442**	**- 7.1**
S-P Combines	951	1,093	- 13.0	5,147	4,908	+ 4.9
Balers (under 200-lb. bales)	565	534	+ 5.8	5,042	6,279	- 19.7
Forage Harvesters (shear-bar type)	391	430	- 9.1	1,507	1,756	- 14.2
Mower-Conditioners	1,121	906	+ 23.7	9,362	9,811	- 4.6

Templeton, Lucas To Major Positions At Deutz-Allis

L. William Templeton has moved from his post as sales vice-president for Kubota Tractor to marketing vice-president for Deutz-Allis Corp. He succeeds Ray Dague, who retires from the position after 41 years with D-A and its predecessor, Allis-Chalmers.

James M. Lucas succeeds Warren Higgins as vice president, combine. Higgins had been with the company 13 years before retiring.

Templeton joined Kubota in 1981 after a 17-year career with Ford Tractor and eight years with a Ford Tractor distributor. Lucas, formerly a vice-president and division manager for Harley-Davidson, also spent 19 years with Ford Motor Co. in manufacturing positions.

The "Skidric" is a battery-operated skid-steer loader designed and built at the Ag Engineering Dept. of South Dakota State U. Power unit is a 72-volt, 320 A-h battery connected to two DC series wound motors for traction and one DC compound wound motor for hydraulics.

Briefly...

Two European tractor firms, Finland's Valmet and Austria's Steyr, have agreed on a joint development program to produce new tractor models for the 1990s. The program would include design work, component sourcing and eventually joint production, with each firm doing its own marketing.

That trend toward competitiveness in the price of American steel continues. The September survey of the Steel Service Center Institute reported that 72 per cent of respondents said the American product was about equal in price to foreign offerings. The other 28 per cent found foreign steel cheaper by 6 to 10 per cent. A year earlier, the positions were approximately reversed, and the shift began in April of this year.

Locations and dates for future conventions of the National Farm & Power Equipment Dealers Assn.: 1987—Aug. 2-6, Milwaukee, Wis.; 1988—Aug. 7-11, Vancouver, B.C.; 1989—Aug. 6-10 Boston, Mass.; 1990—Aug. 5-9, Salt Lake City, Utah; 1991—August, St. Louis, Mo.

Deutz-Allis Will Build Tractors at Independence in '88

A new tractor line to replace its current 8000 series (107 to 170 hp) will be produced by Deutz-Allis in 1988 at its Gleaner plant in Independence, Mo.

According to Roy Uelner, Deutz-Allis president, the tractors produced at Independence will include designs and components sourced both in the U.S. and in West Germany, where Deutz-Allis's parent company, KHD, produces Deutz tractors.

There will be some overlap in the line with the firm's recently introduced 7100 series, which includes four German-made tractors from 85 to 145 pto hp.

Gehl Buys Ag Lines Of Owatonna Mfg.

Gehl Co., West Bend, Wis., manufacturer of haying and livestock feeding equipment, has bought the farm equipment assets of Owatonna Mfg. Co., Owatonna, Minn. The Owatonna ag line includes pull-type and self-propelled mower-conditioners and round balers.

Gehl already produces and markets round balers. Bernard L. Nielsen, Gehl president, explained that while Gehl's models have a variable chamber, Owatonna round balers feature a fixed chamber.

The Owatonna purchase is Gehl's fourth product acquisition in less than a year. The company has bought a line of manure spreaders and manure loading equipment, a line of running gear, and crop residue distributing attachments for grain combines.

Gehl has manufacturing facilities at West Bend and at Madison, S.D.

The U.S. Commerce Dept. is sponsoring a pavilion at Agrotech '87, Bangkok, Thailand, Jan. 17-21. Contact person is Mary R. Wiening, Room H-2124, Dept. of Commerce, Washington D.C. 20230, telephone 202/377-4708.

Motor Vehicles and Specified Machines on U.S. Farms and Average Prices of Wheel Tractors, January 1, Designated Years[1]

Year	Tractors (exclusive of steam & garden)[2] Thousands	Motor Trucks Thousands	Grain Combines Thousands	Corn Pickers and Picker Shellers Thousands	Pick-up Balers Thousands	Field Forage Harvesters Thousands	Garden Tractors and Motor Tillers[3] Thousands	Wheel Tractors Wholesale Prices[4] Per Unit Dollars	Horsepower Dollars
1964	4,786	2,970	920	705	734	312	513	$ 3,443	$ 53
1965	4,787	3,030	910	690	751	316	699	$ 3,541	$ 56
1966	4,783	3,017	888	686	752	316	725	$ 3,886	$ 58
1967	4,786	3,009	867	680	748	319	750	$ 4,257	$ 62
1968	4,766	3,016	847	673	739	321	770	$ 4,709	$ 66
1969	4,712	3,004	820	657	725	314	790	$ 4,976	$ 71
1970	4,619	2,978	790	635	708	304	805	$ 5,560	$ 76
1971	4,562	2,985	760	629	698	309	815	$ 6,190	$ 80
1972	4,509	2,993	725	625	687	315	825	$ 6,486	$ 84
1973	4,477	3,006	703	618	680	324	835	$ 6,953	$ 85
1974	4,478	3,020	685	618	677	332	850	$ 7,294	$ 86
1975	4,463	3,032	666	615	666	337	870	$ 8,459	$ 91
1976	4,434	3,043	647	610	642	342	890	$11,220	$112
1977	4,381	3,052	630	605	614	346	905	$12,692	$124
1978	4,350	3,054	615	600	595	345	917	$13,431	$144
1979	4,623	3,350	655	596	744	295	927	$16,512	$149
1980	4,598	3,367	653	592	759	293	933	$18,139	$166
1981	4,573	3,385	650	587	774	291	938	$23,308	$199
1982	4,547	3,405	647	582	788	288	942	$25,941	$204
1983	4,520	3,427	644	576	799	285	944	$34,198	$237
1984	4,497	3,449	642	569	810	282	945	$37,434	$261
1985	4,480	3,467	640	561	822	280	942	$40,730	$290
1986	4,470	3,460	637	552	819	278	938	.....	.....

[1]SOURCE: Reports of the USDA and the Bureau of the Census. On-farm data after 1970, except 1975 and 1979, are estimated by I&T.
[2]Consists of Wheel and Crawler Tractors.
[3]Motor Tillers included after 1964.
[4]Estimated at wholesale level by dividing **Value of Manufacturers' Shipments** by **Units Shipped** and by **Maximum Belt Horsepower**, data are published in "Current Industrial Reports" of the Bureau of the Census. 1986 not available.
Note: Data from the 1978 Census (Jan. 1, 1979 above) and later years, reflect changes in sample coverage and are not fully comparable with earlier years.

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Principal Machines on Farms – 1986

STATE	WHEEL TRACTORS			SELF-PROPELLED COMBINES			CORN HEADS		
	1978 Census Number	1982 Census Number	Estimated July 1, 1986 Number	1978 Census Number	1982 Census Number	Estimated July 1, 1986 Number	1978 Census Number	1982 Census Number	Estimated July 1, 1986 Number
Maine	13,741	13,569	13,370	388	320	278	183	181	175
New Hampshire	4,877	5,097	5,180	14	8	5	64	50	40
Vermont	14,637	15,274	15,480	156	76	62	346	374	380
Massachusetts	9,840	9,956	9,940	26	23	19	113	145	155
Rhode Island	1,462	1,364	1,290	13	6	4	17	13	10
Connecticut	7,865	8,421	8,630	86	53	42	157	98	75
New York	120,215	119,498	118,410	5,775	6,030	6,110	3,401	3,904	4,080
New Jersey	20,655	20,554	20,380	1,086	1,011	950	532	593	600
Pennsylvania	137,998	136,505	134,900	9,674	9,707	9,650	4,409	5,408	5,800
Delaware	8,348	8,012	7,800	1,314	1,342	1,350	1,003	1,006	990
Maryland	36,251	36,951	37,050	3,518	3,279	3,130	2,732	2,840	2,850
NORTHEAST	**375,889**	**375,201**	**372,430**	**22,050**	**21,855**	**21,600**	**12,957**	**14,612**	**15,155**
Ohio	198,865	193,367	189,300	33,449	33,200	32,800	24,438	26,403	26,980
Indiana	176,767	167,563	161,600	37,403	34,646	32,990	32,638	31,391	30,430
Illinois	277,604	262,112	255,510	63,230	61,411	60,130	55,793	55,636	54,700
Iowa	323,132	305,334	295,300	55,586	57,726	58,830	53,030	57,046	58,140
Missouri	198,225	193,758	190,690	33,378	32,957	32,490	23,056	21,834	20,880
CORN BELT	**1,174,593**	**1,122,134**	**1,092,400**	**223,045**	**219,940**	**217,240**	**188,955**	**192,310**	**191,130**
Michigan	148,063	146,655	145,250	18,919	21,060	21,660	11,076	13,583	14,760
Wisconsin	252,594	243,827	238,300	18,262	19,215	19,570	8,458	11,939	13,680
Minnesota	277,920	264,581	256,900	44,841	45,847	46,200	27,197	31,098	32,680
LAKE STATES	**678,577**	**655,063**	**640,450**	**82,022**	**86,122**	**87,430**	**46,731**	**56,620**	**61,120**
North Dakota	120,191	108,103	102,400	30,782	27,546	26,340	1,619	2,708	3,150
South Dakota	111,485	105,699	101,060	16,503	16,961	17,090	7,759	9,606	10,630
Nebraska	175,569	164,308	159,570	35,083	34,032	33,300	24,623	25,484	25,990
Kansas	157,327	149,870	145,730	47,142	46,662	46,115	9,150	8,321	7,480
GREAT PLAINS	**564,572**	**527,980**	**508,760**	**129,510**	**125,201**	**122,845**	**43,151**	**46,119**	**47,250**
West Virginia	24,901	27,110	27,900	479	562	620	265	471	510
Kentucky	157,432	163,176	164,100	10,568	11,466	11,900	8,382	9,924	10,560
Tennessee	120,161	126,365	129,700	10,765	11,227	11,400	5,581	6,508	6,890
Virginia	83,836	88,511	89,500	5,878	6,224	6,350	4,255	5,061	5,300
North Carolina	145,863	131,488	126,400	13,297	13,820	12,400	10,326	10,618	10,550
APPALACHIAN	**532,193**	**536,650**	**537,500**	**40,987**	**42,299**	**42,670**	**28,809**	**32,582**	**33,810**
South Carolina	47,967	44,338	41,700	6,420	6,263	6,100	3,854	3,808	3,730
Georgia	79,031	75,505	72,900	9,589	8,980	8,640	7,302	6,438	5,900
Florida	51,099	52,346	52,500	1,726	1,742	1,720	1,112	1,307	1,370
Alabama	69,438	66,330	64,100	6,660	6,935	7,050	3,383	3,630	3,680
SOUTHEAST	**247,535**	**238,519**	**231,200**	**24,395**	**23,920**	**23,510**	**15,651**	**15,183**	**14,680**
Mississippi	72,483	70,139	68,770	9,911	9,695	9,530	527	861	1,000
Louisiana	58,373	56,883	55,870	9,624	8,468	7,800	377	286	240
Arkansas	84,108	81,556	79,900	13,960	12,891	12,250	292	221	190
DELTA STATES	**214,964**	**208,578**	**204,540**	**33,495**	**31,054**	**29,580**	**1,196**	**1,368**	**1,430**
Oklahoma	99,771	99,934	99,500	17,647	17,299	16,990	822	600	490
Texas	262,886	264,740	264,900	23,026	21,049	19,775	3,628	3,913	3,990
SOUTHERN PLAINS	**362,657**	**364,674**	**364,400**	**40,673**	**38,348**	**36,765**	**4,450**	**4,513**	**4,480**
Montana	54,737	54,666	54,270	13,180	12,038	11,230	101	89	75
Idaho	53,552	50,575	48,900	9,843	9,309	8,940	414	344	325
Wyoming	19,322	20,673	21,150	1,999	1,991	1,970	171	221	245
Colorado	58,331	56,141	54,950	8,404	7,994	7,750	2,397	2,618	2,650
New Mexico	16,601	17,455	17,650	1,513	1,346	1,230	246	308	335
Arizona	11,956	12,262	12,300	509	369	290	60	94	100
Utah	21,145	21,613	21,650	1,743	1,591	1,470	186	225	240
Nevada	5,142	5,160	5,140	263	234	200	3	19	20
MOUNTAIN STATES	**240,786**	**238,545**	**236,010**	**37,454**	**34,872**	**33,080**	**3,578**	**3,918**	**3,990**
Washington	53,301	59,377	61,840	8,431	8,314	8,190	470	558	590
Oregon	48,158	53,243	55,470	6,335	6,235	6,130	*	209	215
California	129,480	139,735	144,900	6,270	6,102	5,960	1,016	1,123	1,150
PACIFIC	**230,939**	**252,355**	**262,210**	**21,036**	**20,651**	**20,280**	**1,486**	**1,890**	**1,955**
TOTAL	**4,622,705**	**4,519,699**	**4,450,000**	**654,667**	**644,262**	**635,000**	**346,964**	**369,115**	**375,000**

*Not reported separately.

Principal Machines on Farms – 1986

STATE	PICK-UP BALERS 1978 Census Number	PICK-UP BALERS 1982 Census Number	PICK-UP BALERS Estimated July 1, 1986 Number	FIELD FORAGE HARVESTERS[1] 1978 Census Number	FIELD FORAGE HARVESTERS[1] 1982 Census Number	FIELD FORAGE HARVESTERS[1] Estimated July 1, 1986 Number	MOWER CONDITIONERS[2] 1978 Census Number	MOWER CONDITIONERS[2] 1982 Census Number	MOWER CONDITIONERS[2] Estimated July 1, 1986 Number
Maine	2,609	3,047	3,210	1,309	1,181	1,100	2,023	2,353	2,560
New Hampshire	1,254	1,259	1,240	545	544	530	889	960	1,015
Vermont	4,082	4,167	4,150	2,707	2,569	2,425	3,777	3,866	3,935
Massachusetts	1,732	1,704	1,560	1,092	1,083	1,060	1,472	1,533	1,580
Rhode Island	181	205	210	113	93	80	124	146	160
Connecticut	1,509	1,508	1,480	804	773	740	1,063	1,318	1,480
New York	28,853	28,078	27,250	20,298	19,040	18,075	25,390	25,603	25,840
New Jersey	2,194	2,260	2,270	1,093	1,165	1,175	2,275	2,386	2,460
Pennsylvania	37,288	37,257	36,600	18,891	18,078	17,190	29,419	29,456	29,650
Delaware	568	531	510	269	249	230	587	519	480
Maryland	5,581	5,719	5,700	2,852	2,670	2,550	4,653	5,136	5,400
NORTHEAST	**85,851**	**85,735**	**84,180**	**49,973**	**47,465**	**45,155**	**71,672**	**73,276**	**74,560**
Ohio	38,496	39,754	39,700	11,209	11,090	10,850	26,997	26,143	25,850
Indiana	23,838	23,947	23,700	6,912	6,917	6,795	15,733	15,583	15,540
Illinois	30,632	30,463	29,900	11,557	9,972	9,035	21,173	21,867	22,340
Iowa	47,389	47,776	47,500	19,393	17,638	16,500	26,375	28,401	29,700
Missouri	43,981	48,662	49,800	8,704	8,055	7,560	23,469	26,527	28,250
CORN BELT	**184,336**	**190,602**	**190,600**	**57,775**	**53,672**	**50,740**	**113,747**	**118,521**	**121,680**
Michigan	24,536	25,051	25,000	12,704	11,809	11,100	20,696	21,055	21,400
Wisconsin	58,443	58,042	57,200	43,154	43,880	43,555	51,830	51,630	51,700
Minnesota	50,165	51,038	50,800	23,341	23,803	23,600	31,714	32,050	32,400
LAKE STATES	**133,144**	**134,131**	**133,000**	**79,199**	**79,492**	**78,255**	**104,240**	**104,735**	**105,500**
North Dakota	15,180	16,628	17,100	5,538	4,839	4,520	6,315	6,181	6,120
South Dakota	14,174	17,966	19,600	11,280	10,568	10,020	5,673	6,958	7,180
Nebraska	16,968	18,906	19,800	13,870	12,538	11,690	14,740	15,497	16,060
Kansas	29,222	31,998	33,100	10,778	9,367	8,500	17,144	18,932	19,880
GREAT PLAINS	**75,544**	**85,498**	**89,600**	**41,466**	**37,312**	**34,730**	**43,872**	**47,568**	**49,240**
West Virginia	9,119	10,550	11,150	2,094	2,323	2,375	5,035	6,033	6,570
Kentucky	31,575	35,143	36,700	7,752	7,910	7,865	23,656	23,805	24,100
Tennessee	22,028	26,506	28,500	5,202	6,313	6,775	16,834	18,734	19,580
Virginia	17,932	21,805	23,100	6,075	6,209	6,160	12,404	14,659	16,060
North Carolina	12,461	12,752	12,550	4,204	3,502	3,040	10,577	10,888	11,040
APPALACHIAN	**93,115**	**106,756**	**112,000**	**25,327**	**26,257**	**26,215**	**68,506**	**74,119**	**77,350**
South Carolina	4,404	4,823	4,850	1,369	1,260	1,175	3,370	4,033	4,400
Georgia	8,671	10,407	11,100	2,652	2,717	2,700	9,176	9,465	9,630
Florida	2,787	3,754	4,180	903	861	830	6,406	7,591	8,330
Alabama	10,068	11,322	11,700	2,102	2,112	2,080	8,349	8,212	8,180
SOUTHEAST	**25,930**	**30,306**	**31,830**	**7,026**	**6,950**	**6,785**	**27,301**	**29,301**	**30,540**
Mississippi	8,286	10,509	11,450	2,003	1,927	1,860	7,294	7,949	8,340
Louisiana	5,666	6,425	6,720	1,299	1,327	1,310	6,587	6,698	6,800
Arkansas	10,783	13,994	15,500	1,882	1,634	1,470	8,366	10,035	11,000
DELTA STATES	**24,735**	**30,928**	**33,670**	**5,184**	**4,888**	**4,640**	**22,247**	**24,682**	**26,140**
Oklahoma	19,242	22,690	24,100	2,420	2,491	2,490	14,990	17,107	18,370
Texas	26,382	33,736	36,100	5,339	5,109	4,890	32,449	39,629	37,550
SOUTHERN PLAINS	**45,624**	**56,426**	**60,200**	**7,759**	**7,600**	**7,380**	**47,439**	**56,736**	**55,920**
Montana	11,692	12,468	12,730	2,086	2,429	2,550	7,304	8,102	8,530
Idaho	12,862	12,210	11,750	2,391	2,384	2,340	9,029	8,515	8,280
Wyoming	4,468	5,066	5,330	1,261	1,222	1,175	3,433	3,904	4,175
Colorado	10,374	10,365	10,200	4,355	3,503	3,050	7,259	7,040	6,980
New Mexico	3,252	3,403	3,450	774	802	805	2,317	2,395	2,460
Arizona	1,004	6,942	1,040	298	348	360	780	861	910
Utah	6,922	6,965	6,890	1,874	1,978	2,000	5,098	5,547	5,820
Nevada	1,470	1,598	1,630	353	437	470	1,245	1,314	1,365
MOUNTAIN STATES	**52,044**	**53,117**	**53,020**	**13,392**	**13,103**	**12,750**	**36,465**	**37,678**	**38,520**
Washington	8,717	9,518	9,780	2,890	3,060	3,095	8,107	9,838	10,840
Oregon	8,443	9,730	10,260	2,602	2,555	2,485	7,033	8,528	9,370
California	6,358	6,725	6,860	2,530	2,715	2,770	7,558	9,299	10,340
PACIFIC	**23,518**	**25,973**	**26,900**	**8,022**	**8,330**	**8,350**	**22,698**	**27,665**	**30,550**
TOTAL	**743,841**	**799,472**	**815,000**	**295,123**	**285,069**	**275,000**	**558,187**	**594,281**	**610,000**

[1]Shear-bar type. [2]Does not include windrowers with conditioning rolls.

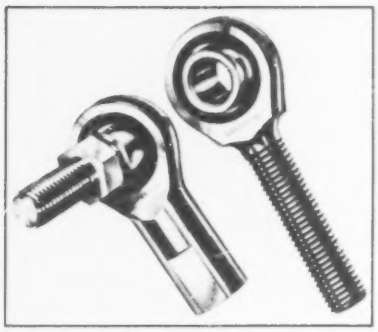
Principal Machines on Farms – 1986

STATE	POWER ELEVATORS Estimated July 1, 1986 Number	MANURE SPREADERS Estimated July 1, 1986 Number	CORN & COTTON PLANTERS Estimated July 1, 1986 Number	GRAIN DRILLS Estimated July 1, 1986 Number	MOLDBOARD PLOWS Estimated July 1, 1986 Number	SIDE DELIVERY RAKES Estimated July 1, 1986 Number	POWER TRACTOR MOWERS* Estimated July 1, 1986 Number
Maine	4,815	2,860	295	790	7,850	5,400	6,170
New Hampshire	2,275	1,830	265	60	2,680	2,290	2,820
Vermont	7,315	5,760	1,480	295	9,070	6,820	8,380
Massachusetts	3,280	2,080	810	110	5,430	3,250	3,700
Rhode Island	460	240	100	30	630	300	300
Connecticut	3,820	2,235	950	80	5,150	2,300	3,250
New York	63,730	36,800	18,150	24,800	71,800	44,200	51,600
New Jersey	5,600	2,200	2,220	2,270	14,960	3,700	4,260
Pennsylvania	67,840	38,100	31,250	37,200	91,200	45,600	57,200
Delaware	3,600	1,610	1,950	1,880	5,750	970	980
Maryland	14,955	7,685	7,980	8,200	25,800	8,300	10,600
NORTHEAST	**177,690**	**101,400**	**65,450**	**75,715**	**240,320**	**123,130**	**149,260**
Ohio	116,550	51,525	59,200	59,300	146,600	51,900	60,500
Indiana	115,640	45,560	60,700	48,300	125,200	38,300	47,300
Illinois	176,000	66,645	88,800	60,900	162,400	49,700	66,600
Iowa	185,865	90,950	98,700	56,500	193,500	84,000	100,500
Missouri	82,425	51,130	47,300	49,100	136,400	49,600	81,200
CORN BELT	**676,480**	**305,810**	**354,700**	**274,100**	**764,100**	**273,500**	**356,100**
Michigan	82,600	33,620	35,900	47,700	118,200	40,700	44,900
Wisconsin	130,275	77,190	63,300	60,800	151,400	85,100	97,100
Minnesota	145,930	69,830	76,200	70,500	163,300	82,300	90,500
LAKE STATES	**358,805**	**180,640**	**175,400**	**179,000**	**432,900**	**208,100**	**232,500**
North Dakota	70,760	19,000	14,250	55,800	59,900	21,460	38,200
South Dakota	62,830	26,550	28,700	31,600	60,100	21,850	44,600
Nebraska	97,355	40,680	42,900	40,500	85,300	33,200	51,600
Kansas	103,880	33,920	20,800	65,800	86,600	34,100	51,100
GREAT PLAINS	**334,825**	**120,150**	**106,650**	**193,700**	**291,900**	**110,610**	**185,500**
West Virginia	6,270	7,690	4,950	3,450	17,850	9,100	17,600
Kentucky	24,180	25,360	36,400	10,650	101,400	29,500	47,400
Tennessee	14,900	18,500	49,200	13,300	65,800	23,500	50,800
Virginia	18,420	19,790	24,500	16,050	61,100	22,400	31,000
North Carolina	20,170	19,390	69,100	21,500	58,700	15,300	31,500
APPALACHIAN	**83,940**	**90,730**	**184,150**	**64,950**	**304,850**	**99,800**	**178,300**
South Carolina	4,580	3,580	28,950	11,100	10,200	5,650	9,700
Georgia	13,690	6,060	36,800	9,570	29,000	10,180	16,150
Florida	3,630	1,090	5,650	1,660	18,800	1,850	3,680
Alabama	11,240	4,045	40,100	6,730	21,700	7,300	15,800
SOUTHEAST	**33,140**	**14,775**	**111,500**	**29,060**	**79,700**	**24,980**	**45,330**
Mississippi	7,685	4,625	49,800	7,920	27,400	9,370	20,900
Louisiana	2,510	2,665	16,800	7,080	20,500	6,050	10,550
Arkansas	9,380	6,495	20,700	12,650	45,300	10,100	20,200
DELTA STATES	**19,575**	**13,785**	**87,300**	**27,650**	**93,200**	**25,520**	**51,650**
Oklahoma	25,040	8,435	8,750	30,900	75,800	19,200	31,600
Texas	39,845	16,010	52,600	48,400	86,700	22,300	45,900
SOUTHERN PLAINS	**64,885**	**24,445**	**61,350**	**79,300**	**162,500**	**41,500**	**77,500**
Montana	27,850	9,945	1,040	20,900	26,930	13,500	20,900
Idaho	24,320	12,400	2,530	15,200	32,700	15,800	20,800
Wyoming	5,000	4,250	910	4,050	15,350	5,090	5,980
Colorado	25,060	12,660	5,920	15,100	25,700	13,900	15,340
New Mexico	2,560	2,060	3,010	1,910	8,600	4,100	4,590
Arizona	1,795	875	1,810	1,390	3,300	1,380	1,980
Utah	10,000	6,860	1,620	5,380	14,850	9,130	10,550
Nevada	935	1,010	60	315	2,500	1,460	1,520
MOUNTAIN STATES	**97,520**	**50,060**	**16,900**	**64,245**	**129,930**	**64,360**	**81,660**
Washington	21,630	13,080	1,750	16,900	36,300	13,300	20,200
Oregon	17,430	11,545	1,080	11,630	35,300	11,700	19,000
California	24,080	13,580	8,770	8,750	59,000	13,500	23,000
PACIFIC	**63,140**	**38,205**	**11,600**	**37,280**	**130,600**	**38,500**	**62,200**
TOTAL	**1,910,000**	**940,000**	**1,175,000**	**1,025,000**	**2,630,000**	**1,010,000**	**1,420,000**

*Cutter bar type only.

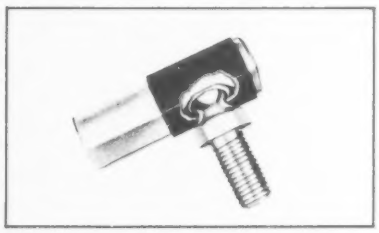
(advertisement)

CONCEPTS IN MOTION TRANSMISSION



High Wear-Resistance Rod Ends

Patented Superior process produces rod ends that provide high wear resistance in demanding applications . . . at a significant saving. Locks in lubricated raceways of fiberglass reinforced nylon, providing maximum contact with precision hardened steel balls, creating free movement with minimum play. Available in both male and female designs, left and right hand thread styles. Sizes from #10-32 through ¾-16, with and without mounting studs. All units plated and dichromate treated for exceptional corrosion resistance. **Tuthill Corporation, Superior Linkage Division, 2110 Summit Street, New Haven, Indiana 46774.**



Type SPG Ball Joints With Alignment Guide

Type SPG patented ball joint, designed for heavy duty service, has "flat top" alignment guide which makes it easy to align ball stud in vertical position to provide maximum movement in all directions, facilitates torquing of lock nuts. Ball joints swivel in 38° minimum cone. Thread sizes from #10-32 through ½-20. Includes Buna-N rubber dirt shield. Ball cavities packed with Lubriplate. Ball studs case hardened steel. Plated and dichromate treated for exceptional corrosion resistance. **Tuthill Corporation, Superior Linkage Division, 2110 Summit Street, New Haven, Indiana 46774.**

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Principal Machines on Farms – 1986

STATE	MOTOR TRUCKS 1978 Census 1,000's	MOTOR TRUCKS 1982 Census 1,000's	MOTOR TRUCKS Estimated July 1, 1986 1,000's	INTERNAL COMBUSTION ENGINES[1] Estimated July 1, 1986 Number	CHAIN SAWS Estimated July 1, 1986 Number
Maine	12.3	12.2	12.1	1,420	7,300
New Hampshire	3.8	4.1	4.3	1,330	2,410
Vermont	6.6	7.5	7.9	1,860	6,060
Massachusetts	9.0	9.4	9.5	1,920	4,420
Rhode Island	1.3	1.3	1.3	200	620
Connecticut	6.6	6.8	6.8	1,690	3,710
New York	57.6	60.5	61.7	22,100	48,750
New Jersey	14.4	15.2	15.6	2,470	5,830
Pennsylvania	63.8	66.1	66.8	21,700	42,700
Delaware	6.2	6.2	6.1	990	2,470
Maryland	22.8	25.9	27.4	4,820	11,950
NORTHEAST	**204.4**	**215.2**	**219.5**	**60,500**	**136,220**
Ohio	107.1	107.8	107.4	20,400	59,480
Indiana	114.4	112.2	111.4	21,100	63,750
Illinois	150.6	150.6	149.4	31,400	69,200
Iowa	144.0	147.7	148.4	33,400	55,000
Missouri	155.9	159.7	161.6	34,600	92,100
CORN BELT	**672.0**	**678.0**	**678.2**	**140,900**	**339,530**
Michigan	77.4	80.3	81.5	19,000	44,450
Wisconsin	98.0	99.5	99.4	36,400	90,250
Minnesota	144.1	143.8	142.4	49,400	64,550
LAKE STATES	**319.5**	**323.6**	**323.3**	**104,800**	**199,250**
North Dakota	107.7	101.1	96.4	37,200	4,170
South Dakota	66.0	68.0	68.5	24,800	3,220
Nebraska	118.6	118.9	118.2	33,800	13,730
Kansas	160.8	159.4	157.1	43,500	22,650
GREAT PLAINS	**453.1**	**447.4**	**440.2**	**139,300**	**43,770**
West Virginia	19.2	20.5	21.0	5,300	21,200
Kentucky	119.3	125.2	128.0	17,000	43,700
Tennessee	96.4	104.7	109.0	13,100	57,600
Virginia	62.6	68.0	70.2	12,700	47,400
North Carolina	106.2	103.3	100.5	16,500	85,000
APPALACHIAN	**403.7**	**421.7**	**428.7**	**64,600**	**254,900**
South Carolina	36.1	34.6	33.4	6,500	24,000
Georgia	74.3	72.6	71.1	13,400	33,100
Florida	49.4	51.2	51.8	12,800	7,590
Alabama	68.6	67.4	66.2	10,900	31,260
SOUTHEAST	**228.4**	**225.8**	**222.5**	**43,600**	**95,950**
Mississippi	58.0	59.0	59.1	10,500	36,900
Louisiana	44.9	44.3	43.8	12,500	20,250
Arkansas	80.7	79.3	77.8	14,200	31,100
DELTA STATES	**183.6**	**182.6**	**180.7**	**37,200**	**88,250**
Oklahoma	118.3	122.8	125.5	21,200	10,030
Texas	239.0	249.9	264.6	63,300	19,600
SOUTHERN PLAINS	**357.3**	**372.7**	**390.1**	**84,500**	**29,630**
Montana	67.2	68.2	68.3	19,300	11,940
Idaho	56.7	57.1	56.7	15,800	13,230
Wyoming	20.0	22.1	23.2	6,250	3,240
Colorado	63.4	63.0	62.3	20,300	6,120
New Mexico	23.9	24.6	24.9	7,600	3,040
Arizona	15.3	16.6	17.2	5,200	520
Utah	21.7	23.3	24.1	6,600	2,400
Nevada	6.0	6.5	6.7	1,550	610
MOUNTAIN STATES	**274.2**	**281.4**	**283.4**	**82,600**	**41,100**
Washington	64.7	69.2	70.6	16,500	23,000
Oregon	54.4	61.2	58.8	21,400	26,100
California	134.6	147.9	154.0	64,100	32,300
PACIFIC	**253.7**	**278.3**	**283.4**	**102,000**	**81,400**
TOTAL	**3,349.9**	**3,426.7**	**3,450.0**	**860,000**	**1,310,000**

[1]Includes engines used for stationary work such as irrigation, auxiliary engines on combines, balers, etc., and a small number of power units not elsewhere classified.

NEW AGRICULTURAL WHEEL TRACTOR IMPORTS JAN. 1981 – JUNE 1986

Nation of Origin	Under 40 HP*	40-79 HP*	80-99 HP*	100 HP and Over*	HP Not Specifically Provided*	Not Elsewhere Specified, Excl. Industrial, Incl. Garden Types**	TOTALS
Canada							
6 mos., 1986	74	35	22	257	19	336	743
year 1985	118	66	94	637	786	589	2,290
year 1984	56	74	145	899	1,539	985	3,698
year 1983	53	59	111	718	1,191	534	2,666
year 1982	32	63	84	347	1,383	233	2,142
year 1981	73	47	121	461	1,915	153	2,770
United Kingdom							
6 mos., 1986	3,323	9,583	731	18	93	154	13,902
year 1985	5,362	11,028	1,220	565	101	137	18,413
year 1984	4,955	16,166	2,304	1,498	72	330	25,325
year 1983	5,173	13,502	1,840	843	32	102	21,492
year 1982	546	3,195	754	156	74	284	5,009
year 1981	614	6,031	1,109	682	15	93	8,544
Japan							
6 mos., 1986	30,550	8,608	56	67	268	7,892	47,441
year 1985	58,807	13,306	75	76	233	16,331	88,828
year 1984	50,723	9,347	192	122	298	18,591	79,273
year 1983	41,265	4,490	69	136	350	9,809	56,119
year 1982	37,534	3,063	13	231	774	8,101	49,716
year 1981	40,978	2,821	3	85	714	5,469	49,530
West Germany							
6 mos., 1986	10	4,771	722	28	7	21	5,559
year 1985	999	6,639	1,513	473	119	140	9,883
year 1984	124	5,333	2,113	537	18	46	8,171
year 1983	97	10,570	2,747	363	6	33	13,816
year 1982	2	4,016	2,718	668	43	32	7,479
year 1981	2	6,653	2,421	750	7	8	9,841
Italy							
6 mos., 1986	38	520	38	.....	1	2,723	3,320
year 1985	267	1,501	143	205	20	1,105	3,241
year 1984	141	1,836	432	329	1	496	3,235
year 1983	152	1,598	357	236	2	2,803	5,148
year 1982	417	1,399	369	863	2	67	3,117
year 1981	767	1,839	430	341	57	116	3,559
Romania							
6 mos., 1986	21	221	.....	.....	.....	.....	242
year 1985	353	830	.....	.....	.....	3	1,186
year 1984	225	946	.....	.....	.....	.....	1,171
year 1983	271	1,166	.....	.....	.....	17	1,454
year 1982	1,101	3,317	1	1	12	14	4,446
year 1981	558	3,050	.....	1	.....	2	3,611
France							
6 mos., 1986	14	80	43	98	2	7	244
year 1985	138	360	193	255	4	42	992
year 1984	2	213	223	755	5	74	1,272
year 1983	133	819	234	8	.....	3	1,197
year 1982	.....	19	245	11	34	.....	309
year 1981	1	48	.....	17	.....	2	68
TOTALS							
6 mos., 1986	34,555	24,350	1,678	824	604	11,192	73,203
year 1985	66,600	34,392	3,318	2,301	1,830	18,518	126,959
year 1984	56,782	35,428	5,626	4,195	2,207	20,642	124,880
year 1983	47,289	34,085	5,367	2,311	1,603	13,406	104,061
year 1982	39,764	15,858	4,190	2,378	2,366	8,739	73,295
year 1981	44,208	21,012	4,084	2,339	2,714	5,858	80,215

Others in 1985: Czechoslovakia – 591; U.S.S.R. – 406; Netherlands – 389; Belgium – 157.
Others in first half 1986: Czechoslovakia – 535; U.S.S.R. – 418; Belgium – 448.
Source: U.S. Dept. of Commerce, International Trade Admin., Office of Capital Goods and International Construction.
*Excluding garden tractors. **Including garden tractors and rototillers.

IMPORTS OF FARM EQUIPMENT BY PRODUCT

Product	Jan.-Dec., 1984 Quantity	Jan.-Dec., 1984 Value in Thousands of Dollars	Jan.-Dec., 1985 Quantity	Jan.-Dec., 1985 Value in Thousands of Dollars	Jan.-June, 1986 Quantity	Jan.-June, 1986 Value in Thousands of Dollars
Knives & Cutting Blades	10,337,480	$ 8,785	11,710,518	$ 10,240	5,142,368	$ 4,463
Plows & Listers	2,184	5,479	2,555	2,700	1,692	4,613
Cultivators & Weeders	16,517	17,711	19,075	14,198	20,308	12,304
Parts of Plows, Cultivators, Weeders & Listers	.....	30,732	.....	29,840	.....	13,589
Harrows, Rollers, Stalk Cutters, Soil Pulverizers	23,383	7,956	32,375	10,844	22,599	7,774
Parts of Harrows, Rollers, Stalk Cutters, etc.	.....	19,777	.....	13,531	.....	5,745
Planting, Seeding & Fertilizing Machinery	38,908	31,376	39,976	23,633	21,889	13,073
Parts of Planting, Seeding & Fertilizing Machinery	.....	10,716	.....	9,101	.....	4,818
Haying Machinery other than Mowers	6,614	11,411	7,661	10,426	4,260	8,392
Mowers except Lawn Mowers	14,711	31,079	17,140	29,906	13,411	21,681
Harvesting Machines, NES	10,520	82,393	10,312	75,217	4,560	18,433
Parts of Harvesting Machines	.....	57,903	.....	56,216	.....	28,326
Farm Wagons & Carts	3,041	4,148	4,571	4,368	2,338	2,085
Agricultural Machines & Implements, NES	.....	122,054	.....	131,945	.....	78,631
Parts of Agricultural Machines, NES	.....	81,670	.....	78,377	.....	46,522
Tractors, Agricultural, Wheel-Type, New, excluding Industrial*	124,880	819,028	126,959	718,163	73,203	435,772
Tractors, Agri., Used	5,457	40,525	6,605	41,883	2,293	15,382
Parts for Agri. Tractors	.....	323,003	.....	285,290	.....	146,996
Walk-Behind Rotary Tillers	NA	NA	3,889	1,765	10,645	1,187

Source: U.S. Dept. of Commerce, International Trade Administration, Office of Capital Goods and International Construction.
NES – Not elsewhere specified.
*Use of the term "Industrial" here is understood to refer to such machines as forklifts but not to industrial tractors as commonly defined in the farm and industrial equipment industry.

VASSAR "ROOTHAWG®" Root Grubber
Put those non-productive acres to use with the "ROOTHAWG".

ROOTHAWG does what your axe and grubbing hoe can't. Cuts to depths of 12" to 15" — Use on Cedar, Mesquite, Sumac and other types of brush.

ROOTHAWG helps to control growth of unwanted brush — Ridding your fields of moisture robbers — reestablishing grass in your brush area.

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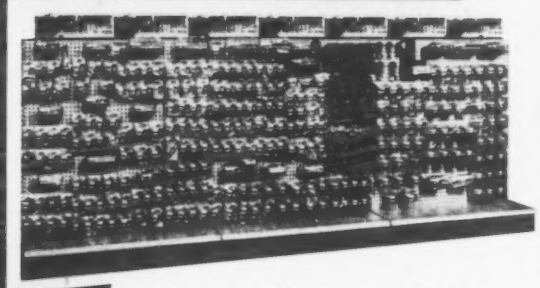

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DOLLAR VALUE OF FARM EQUIPMENT
IMPORTS BY COUNTRY OF ORIGIN, Jan., 1981-June, 1986
(In thousands)

Country	Jan.-Dec. 1981	Jan.-Dec. 1982	Jan.-Dec. 1983	Jan.-Dec. 1984	Jan.-Dec. 1985	Jan.-June 1986
Canada	$706,276	$487,286	$453,551	$576,583	$415,527	$178,169
Mexico	9,699	11,349	18,563	10,099	8,159	2,535
Brazil	1,064	4,780	6,424	11,395	12,214	6,148
Sweden	2,784	3,023	2,873	4,002	3,464	2,497
Denmark	4,690	4,910	5,856	7,670	9,331	4,101
Netherlands	13,626	13,924	32,831	46,912	33,945	15,221
United Kingdom	153,589	93,806	163,678	217,201	207,020	128,910
Belgium	50,393	25,730	23,691	27,697	29,389	25,200
France	41,695	30,804	41,333	72,605	68,681	42,986
West Germany	197,110	169,087	248,015	223,651	222,756	137,242
Hungary	9,329	7,564	2,404	11,665	5,444	1,115
Czechoslovakia	NA	1,113	1,892	5,888	5,926	3,798
Romania	12,598	15,461	6,088	4,701	4,409	969
Italy	100,853	95,092	99,219	152,409	122,300	62,681
Spain	3,561	6,541	2,946	7,124	3,996	2,711
Israel	2,777	2,[illegible]7	2,988	4,183	7,619	4,158
New Zealand	8,630	9,7[illegible]	11,[illegible]	11,220	10,725	4,289
Australia	7,306	4,662	3,209	4,568	5,421	3,810
Japan	202,000	181,056	204,818	309,757	355,577	232,920
China (Taiwan)	2,562	2,913	3,617	5,175	5,132	3,510
China (P.R.C.)	86	1,381	1,949	3,113	2,568	1,678
TOTAL	**$1,549,799**	**$1,179,734**	**$1,347,483**	**$1,729,402**	**$1,557,623**	**$876,790**

Source: U.S. Dept. of Commerce, International Trade Administration, Office of Capital Goods and International Construction.

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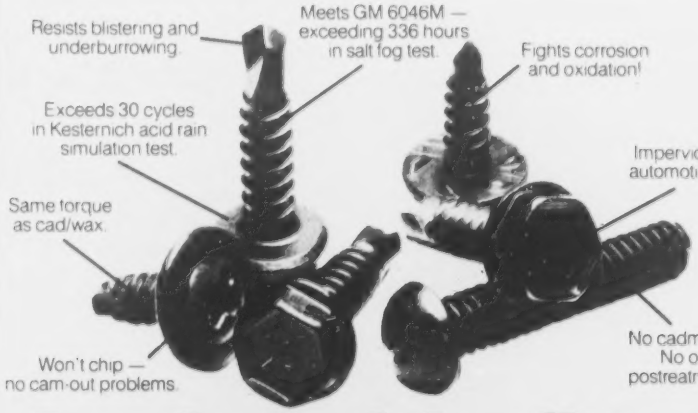
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FARM EQUIPMENT EXPORTS BY TYPE OF PRODUCT

Product	Jan.-Dec., 1984 Quantity	Jan.-Dec., 1984 Dollar Value in Thousands	Jan.-Dec., 1985 Quantity	Jan.-Dec., 1985 Dollar Value in Thousands	Jan.-June, 1986 Quantity	Jan.-June, 1986 Dollar Value in Thousands
Combines, pull-type	1,073	$26,609	829	$13,423	993	$21,613
Combines, self-propelled	3,603	161,082	3,942	170,229	2,143	73,553
Cultivators, tractor-drawn or mounted	3,282	6,941	2,177	5,876	836	1,818
Cultivators, NEC, and Weeders	2,758	7,671	3,571	6,052	3,190	2,623
Farm Elevators and Blowers	1,304	4,340	1,766	5,770	600	1,724
Farm Wagons and Carts	1,590	2,750	833	2,021	385	770
Parts for Farm Wagons and Carts	.....	1,543	.....	897	.....	311
Fertilizing Machines	4,421	15,120	4,580	13,820	4,268	7,582
Forage Harvesters	1,841	23,772	1,655	19,861	769	14,195
Harrows, Disk	2,294	12,941	1,681	7,768	501	1,847
Harrows, NEC, & Soil Pulverizers	6,215	6,448	4,266	4,764	1,867	2,279
Parts for Harrows, Stalk Cutters & Soil Pulverizers	.....	5,547	.....	9,292	.....	1,907
Harvesting Machines, NEC	5,767	80,120	5,329	75,125	2,567	22,674
Harvesting Machine Parts	.....	140,082	.....	129,487	.....	63,943
Hay Balers	5,567	37,181	4,387	32,563	2,888	21,705
Haying Machines, NEC (incl. rakes & tedders)	3,620	20,398	2,722	17,083	1,407	8,335
Parts for Haying Machines	.....	24,011	.....	14,845	.....	7,966
Mowers, Cutterbar, tractor-drawn	1,317	4,015	1,400	2,895	893	1,867
Mowers, Rotary, tractor-drawn (excl. lawn mowers)	11,187	7,076	7,481	5,691	5,239	3,520
Mowers, NEC, tractor-drawn (excl. lawn mowers)	1,888	7,448	2,372	6,647	1,218	4,037
Planting Machines	6,766	10,085	3,340	7,816	1,113	4,657
Plows, Disk	1,173	2,724	853	2,357	315	614
Plows, Moldboard	2,372	7,246	1,654	5,351	387	1,373
Plows & Listers, NEC	3,813	10,285	3,272	9,055	1,345	4,147
Parts for Plows, Listers, Cultivators & Weeders	.....	19,746	.....	9,184	.....	5,525
Seeding Machines	14,202	26,692	8,599	18,709	5,522	11,274
Parts for Planting, Seeding & Fertilizing Machines	.....	22,186	.....	13,479	.....	7,478
Farm Tractors:						
Under 40 PTO HP	660	3,407	669	3,521	513	2,380
40-59 PTO HP	629	6,174	798	8,536	369	3,745
60-79 PTO HP	882	13,084	818	12,279	312	4,878
80-99 PTO HP	989	23,318	1,164	23,580	260	4,979
100-119 PTO HP	842	23,918	760	22,200	346	11,680
120-139 PTO HP	1,781	62,957	1,741	60,801	533	18,235
140-159 PTO HP	1,439	53,560	1,264	47,619	641	22,957
160-179 PTO HP	1,472	65,856	1,409	63,625	798	33,125
180 HP & Over	2,380	150,476	1,793	119,052	861	55,037
Other Farm Tractors	1,414	17,939	1,157	23,815	861	10,723
Parts for Farm Tractors	.....	672,613	.....	566,941	.....	243,484

Source: U.S. Dept. of Commerce, International Trade Admin., Office of Capital Goods and International Construction.
NEC – Not elsewhere counted or classified.

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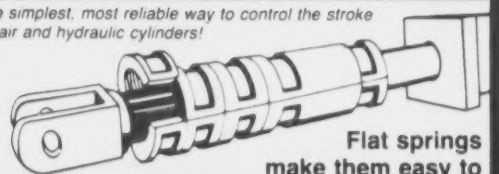

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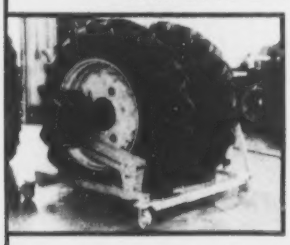

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Cofer Sales has the right heavy-duty tire cart for your shop. Three models are built to adapt to any size tire. And all three can be hooked up in minutes... by one man. That saves time... and money. Cofer Tire Carts are the safest way to handle tractor tires. For complete information on these and our complete line of shop equipment call or write.
DT 27 shown with scissor adaptor to support axle housing.

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VALUE OF U.S. FARM EQUIPMENT EXPORTS BY COUNTRIES OF DESTINATION

(Value in thousands of dollars)

Country	1983	1984	1985	Jan.-June 1986
Western Hemisphere				
Canada	$852,317	$891,074	$791,762	$396,120
Mexico	45,610	113,912	214,838	46,607
Guatemala	2,719	3,610	3,719	1,995
Honduras	3,200	5,890	3,884	1,367
Nicaragua	5,446	7,296	5,103	.....
El Salvador	2,372	3,661	2,397	1,458
Costa Rica	3,083	6,306	5,073	2,223
Panama	3,797	2,704	3,396	1,324
Trinidad	4,064	2,544	2,410	1,090
Dominican Republic	6,142	5,545	4,934	6,353
Colombia	16,778	16,191	11,989	7,026
Jamaica	3,511	4,398	3,210	1,336
Venezuela	19,045	23,904	43,193	29,488
Brazil	9,048	16,423	17,707	7,992
Argentina	9,792	10,136	5,283	2,437
Bolivia	790	3,636	3,382	1,638
Chile	3,517	5,581	7,385	2,248
Ecuador	5,886	6,858	11,056	5,707
Peru	7,100	7,052	4,079	1,978
Europe				
Denmark	1,969	2,467	1,983	2,239
Sweden	8,760	9,066	3,445	2,602
United Kingdom	65,761	68,267	53,285	33,882
Netherlands	10,143	7,586	6,850	7,092
Belgium	55,046	53,832	23,595	22,376
France	97,761	89,374	60,232	43,800
West Germany	76,414	67,436	56,817	37,941
Hungary	13,203	10,955	12,741	9,887
Switzerland	2,844	3,204	2,441	1,899
Spain	7,871	10,986	9,760	7,716
Italy	6,660	8,610	7,572	7,988
Yugoslavia	1,789	1,532	2,893	1,753
Greece	7,416	22,295	18,094	1,005
U.S.S.R.	16,075	12,546	15,622	2,790
Middle East				
Israel	15,181	16,958	13,844	3,176
Kuwait	1,446	1,691	3,099	1,423
Saudi Arabia	307,795	257,307	96,269	23,699
Jordan	1,641	3,664	2,524	322
Iraq	1,380	2,136	5,321	1,698
Asia and Pacific				
India	4,037	2,959	801	674
Thailand	3,247	2,650	1,956	621
Singapore	12,731	13,100	4,315	2,680
Indonesia	5,440	3,795	936	1,020
Sri Lanka	5,397	7,674	3,028	176
China (Taiwan)	1,399	2,296	2,635	1,406
China (P.R.C.)	1,791	16,894	6,545	7,402
Philippines	3,432	4,045	1,967	1,031
Korea	5,098	5,236	3,294	1,346
Japan	20,001	20,196	17,458	10,984
Australia	97,970	214,075	141,506	26,778
New Zealand	5,489	5,293	3,723	1,134
Africa				
Algeria	6,917	5,133	4,418	4,289
Libya	3,276	19,687	14,819	1,196
Sudan	10,081	4,498	2,163	2,268
Nigeria	1,668	2,538	5,856	2,741
Egypt	13,092	11,436	22,510	5,755
Rep. South Africa	57,023	59,537	29,370	14,603
Morocco	1,936	256	4,148	397
Rhodesia	5,354	1,643	2,904	1,094
Total U.S. Exports, Farm & Industrial Equipment	**$2,014,069**	**$2,235,014**	**$1,854,772**	**$835,584**

Source: U.S. Dept. of Commerce, International Trade Admin., Office of Capital Goods and International Construction.

Self-Competing Dealer

(Continued from page 9)

Naturally, they were concerned. Lawson was asked to come into the Kansas City office and explain what he was doing.

"We talked over various phases of the project, and I assured them that Lawson Truck & Tractor would continue to represent them as it had in the past. We debated how ownership of two competing-line dealerships was not all that unique to the industry in 1986. I also reminded them how many dealerships were dualing with more than one line being offered under one roof."

Lawson made the point that the two dealerships would be separate entities, each with a different manager. There would be two sets of internal controls, and two separate banks would be used. There would be no merging of the two dealerships' assets.

"I don't think that under these circumstances, Case-IH interests would be affected," Lawson says. "Had I tried to merge another tractor line right into the home operation at Stanberry, that could have been another matter."

What's the volume objective? Stanberry will produce about $3 million in a good year. "And we're shooting for $1 million in the Albany store's first year under new ownership," says Lawson. "With proper management, we expect that it can be a $2 million-plus dealership."

What would Lawson advise other dealers who might face a decision similar to the one he dealt with?

"Mine was a unique opportunity. I'd advise anyone to take the precautions I did. Make certain there is financial backing in the community the dealership proposes to serve. Be sure the purchased business forces no financial strain on your existing dealership. And be completely dedicated to the success of the business."

Some dealers are seeking diversification from the farm equipment business. But Charles Lawson sees it this way:

"I feel that buying another farm equipment dealership is far better than trying to diversify—for instance, by installing a computer store in a shopping mall.

"If you know you are good at selling farm equipment, then stick to it!" □

FARM WHEEL TRACTOR
RETAIL SALES BY STATE, 1982-1985

State	1982			1983			1984			1985		
	2-wheel Drive 40 PTO HP & over	4-wheel Drive	Total Tractors	2-wheel Drive	4-wheel Drive	Total Tractors	2-wheel Drive	4-wheel Drive	Total Tractors	2-wheel Drive	4-wheel Drive	Total Tractors
Alabama	1,108	14	1,122	2,325	3	2,328	2,653	10	2,663	2,872	2	2,874
Alaska	10	.....	10	78	.....	78	71	.....	71	39	.....	39
Arizona	425	73	498	619	27	646	782	30	812	1,240	29	1,269
Arkansas	1,772	125	1,897	3,582	139	3,721	3,714	91	3,805	3,683	70	3,753
California	2,976	251	3,227	5,040	214	5,254	5,946	186	6,132	4,931	74	5,005
Colorado	634	121	755	1,188	126	1,314	1,234	106	1,340	983	89	1,072
Connecticut	145	2	147	491	– 2	489	618	3	621	715	1	716
Delaware	79	5	84	258	4	262	248	7	255	286	7	293
Florida	1,636	55	1,691	3,622	68	3,690	4,614	19	4,633	4,543	30	4,573
Georgia	1,821	27	1,848	3,660	6	3,666	4,655	10	4,665	5,242	5	5,247
Hawaii	37	2	39	141	.....	141	116	5	121	126	9	135
Idaho	812	197	1,009	1,013	131	1,144	1,062	117	1,179	786	83	869
Illinois	3,580	600	4,180	4,658	433	5,091	3,958	312	4,270	3,327	252	3,579
Indiana	1,807	289	2,096	2,837	197	3,034	2,801	135	2,936	2,789	113	2,902
Iowa	4,319	475	4,794	4,149	284	4,433	2,964	129	3,093	1,894	68	1,962
Kansas	2,353	515	2,868	2,575	403	2,978	2,199	342	2,541	1,739	248	1,987
Kentucky	2,609	23	2,632	3,244	21	3,265	2,945	15	2,960	3,044	23	3,067
Louisiana	1,607	66	1,673	4,143	64	4,207	3,894	48	3,942	3,419	66	3,485
Maine	242	3	245	549	1	550	615	.....	615	625	.....	625
Maryland	492	14	506	1,440	17	1,457	1,683	7	1,690	2,139	3	2,142
Massachusetts	144	1	145	517	.....	517	621	.....	621	783	.....	783
Michigan	1,613	197	1,810	2,569	143	2,712	2,751	132	2,883	2,975	74	3,049
Minnesota	2,793	479	3,272	3,029	386	3,415	2,441	295	2,736	1,714	202	1,916
Mississippi	1,563	71	1,634	2,571	31	2,602	3,030	25	3,055	3,172	20	3,192
Missouri	2,531	209	2,740	3,086	118	3,204	3,036	75	3,111	3,159	35	3,194
Montana	754	324	1,078	861	260	1,121	677	195	872	602	122	724
Nebraska	2,337	226	2,563	2,121	168	2,289	1,598	99	1,697	963	63	1,026
Nevada	66	5	71	79	4	83	82	6	88	113	4	117
New Hampshire	158	.....	158	505	.....	505	712	1	713	946	.....	946
New Jersey	249	1	250	781	1	782	1,039	1	1,040	1,062	1	1,063
New Mexico	286	14	300	421	12	433	371	19	390	529	18	547
New York	1,741	77	1,818	2,825	54	2,879	3,296	45	3,341	3,717	21	3,738
North Carolina	2,022	34	2,056	4,072	12	4,084	4,571	12	4,583	4,478	9	4,487
North Dakota	1,322	740	2,062	1,354	491	1,845	1,112	457	1,569	917	351	1,268
Ohio	1,975	164	2,137	3,475	128	3,603	3,887	108	3,995	4,537	56	4,593
Oklahoma	1,891	279	2,170	2,557	218	2,775	2,364	213	2,577	2,203	167	2,370
Oregon	868	84	952	1,601	56	1,657	1,705	41	1,746	1,606	36	1,642
Pennsylvania	1,575	26	1,601	3,425	24	3,449	3,717	21	3,738	4,095	16	4,111
Rhode Island	12	.....	12	64	.....	64	85	.....	85	97	.....	97
South Carolina	779	17	796	1,524	10	1,534	1,904	2	1,906	2,171	5	2,176
South Dakota	1,355	238	1,593	1,230	221	1,451	1,060	169	1,229	809	158	967
Tennessee	1,923	29	1,952	3,803	20	3,823	3,936	15	3,951	4,522	16	4,538
Texas	6,886	299	7,185	13,786	308	14,094	12,338	226	12,564	13,252	192	13,444
Utah	466	23	489	655	21	676	688	15	703	625	6	631
Vermont	245	8	253	414	1	415	509	5	514	600	2	602
Virginia	1,455	15	1,470	2,677	6	2,683	2,736	5	2,741	3,253	5	3,258
Washington	1,168	134	1,302	1,951	125	2,076	1,956	105	2,061	1,652	83	1,735
West Virginia	325	1	326	480	1	481	525	1	526	685	.....	685
Wisconsin	2,860	167	3,027	2,907	115	3,022	2,821	82	2,903	2,615	60	2,675
Wyoming	224	44	268	277	25	302	302	26	328	168	18	186
U.S. Government	98	.....	98	4	1	5	530	.....	530	13	.....	13
Miscellaneous	234	.....	234	605	3	608	590	3	593	306	.....	306
TOTAL	**70,381**	**6,763**	**77,144**	**111,838**	**5,099**	**116,937**	**113,759**	**3,975**	**117,734**	**112,761**	**2,912**	**115,673**

Source: Farm & Industrial Equipment Institute. Figures do not include garden tractors, motor tillers or contractor's off-highway types. Tractors under 40 pto horsepower were not reported publicly by the FIEI prior to 1983. I&T estimates retail sales of such units were 42,000 in 1982.

RETAIL SALES OF SELECTED FARM EQUIPMENT – Jan.-Dec., 1984 and 1985(1)

(In Units)

State	Combines Self-Propelled		Corn Heads		Hay Balers(2)		Windrowers Self-Propelled — Power Units		Windrowers Self-Propelled — Total Heads		Grinder-Mixers		Shear-Bar Forage Harvesters(3)		Mower Conditioners All Types	
	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985	1984	1985
Alabama	89	59	23	24	101	86	.....	.....	.....	.....	41	41	12	11	91	88
Alaska	.....	.....	.....	.....	3	7	.....	.....	.....	.....	.....	.....	1	.....	3	5
Arizona	45	26	1	1	33	27	46	50	56	55	1	1	9	4	4	5
Arkansas	424	181	8	5	165	168	.....	.....	.....	.....	31	28	11	2	250	216
California	78	62	38	22	131	99	159	178	180	204	1	1	37	45	22	30
Colorado	121	109	47	34	258	229	112	103	123	120	12	12	23	21	85	110
Connecticut	.....	.....	.....	.....	37	26	.....	.....	.....	.....	1	1	31	19	60	48
Delaware	33	28	22	22	13	12	.....	1	.....	1	3	8	7	1	11	12
Florida	20	16	5	5	72	78	.....	1	– 2	2	3	5	16	17	38	54
Georgia	238	149	111	78	133	136	1	.....	1	.....	44	39	31	27	150	125
Hawaii	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Idaho	183	112	3	3	220	200	136	108	148	139	13	3	27	14	55	60
Illinois	1,424	1,086	1,297	1,062	236	143	4	3	6	3	140	129	103	49	417	325
Indiana	763	613	695	650	192	166	4	2	4	2	119	113	86	45	403	350
Iowa	982	635	1,115	640	171	80	22	15	23	16	288	180	105	46	517	252
Kansas	697	595	88	84	171	124	115	124	123	140	49	34	43	36	323	263
Kentucky	171	109	95	89	205	201	2	.....	2	.....	80	78	77	47	593	616
Louisiana	156	71	4	12	76	90	.....	.....	.....	.....	6	7	2	6	28	38
Maine	1	.....	.....	.....	53	53	2	2	2	2	.....	.....	20	28	86	71
Maryland	96	90	82	82	75	83	5	6	6	6	19	22	36	34	104	129
Massachusetts	.....	.....	.....	.....	37	27	.....	.....	.....	.....	.....	.....	24	28	58	68
Michigan	212	127	213	133	248	187	25	24	28	22	110	87	198	132	465	329
Minnesota	755	417	489	268	413	214	162	95	178	101	155	97	300	159	653	387
Mississippi	206	93	5	1	66	47	1	.....	1	.....	18	19	24	16	50	35
Missouri	444	397	141	157	298	255	22	11	16	12	118	71	44	29	879	628
Montana	191	120	.....	1	105	88	105	88	121	115	32	17	30	24	102	63
Nebraska	531	489	405	372	71	42	109	45	130	61	84	59	84	37	235	131
Nevada	1	1	.....	.....	28	26	26	31	30	37	2	2	2	10	8	14
New Hampshire	.....	.....	.....	.....	42	40	.....	.....	.....	.....	.....	1	20	15	57	57
New Jersey	11	6	4	8	29	32	1	.....	1	.....	9	3	6	4	50	43
New Mexico	11	23	1	2	151	124	38	50	40	52	2	2	3	6	24	35
New York	49	35	55	51	432	391	25	24	25	25	31	35	390	291	741	659
North Carolina	247	127	218	117	221	155	1	.....	1	.....	43	26	50	56	351	264
North Dakota	652	459	44	31	18	9	252	182	283	198	59	51	49	36	112	79
Ohio	466	438	391	369	340	307	11	11	11	11	145	118	131	100	613	646
Oklahoma	269	235	2	21	275	330	53	69	56	82	29	31	9	10	350	450
Oregon	77	85	8	8	167	159	65	94	74	115	2	6	28	21	78	95
Pennsylvania	112	95	107	101	539	468	31	26	31	26	132	147	266	206	842	717
Rhode Island	.....	.....	.....	.....	2	4	.....	.....	.....	.....	.....	.....	.....	.....	3	2
South Carolina	98	48	42	53	64	45	.....	1	.....	1	17	15	17	12	102	78
South Dakota	294	283	117	106	56	24	201	98	225	118	92	72	123	59	113	44
Tennessee	219	114	38	28	237	198	2	.....	2	.....	88	93	48	41	558	482
Texas	497	466	123	112	519	756	45	55	46	63	105	81	24	30	844	1,142
Utah	24	18	2	3	206	137	57	47	63	52	7	4	38	26	154	95
Vermont	.....	.....	2	....	55	58	4	6	4	7	1	.....	61	53	165	137
Virginia	92	72	68	51	167	141	2	1	2	1	47	39	105	69	545	485
Washington	157	141	16	12	210	167	53	61	64	57	1	– 1	28	40	110	95
West Virginia	2	.....	3	.....	84	68	.....	.....	.....	.....	15	10	12	17	121	114
Wisconsin	259	161	283	198	787	461	133	66	132	71	150	117	737	474	1,400	1,018
Wyoming	25	20	8	.....	102	65	59	35	71	43	4	10	10	5	34	30
U.S. Government	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous(4)	.....	.....	.....	.....	.....	5	.....	.....	.....	.....	.....	.....	.....	2	.....	24
TOTAL	**11,422**	**8,411**	**6,419**	**5,016**	**8,314**	**7,038**	**2,091**	**1,713**	**2,307**	**1,961**	**2,349**	**1,914**	**3,538**	**2,460**	**13,057**	**11,243**

Data released Feb. 4, 1986, Farm & Industrial Equipment Institute.

(1) Includes revisions for prior months.
(2) For making bales of under 200 lbs.
(3) Pull-type, mounted, self-propelled.
(4) Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.